UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

# NOTICE OF ALLOWANCE AND FEE(S) DUE

NXP, B.V.
NXP INTELLECTUAL PROPERTY & LICENSING M/S41-SJ
1109 MCKAY DRIVE SAN JOSE, CA 95131

EXAMINER
RAO, ANAND SHASHIKANT

PAPER NUMBER

ART UNIT

DATE MAILED: 06/27/2011

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,889	06/07/2005	Richard Chi-Te Shen	US02628US	8404

TITLE OF INVENTION: ENHANCING VIDEO IMAGES DEPENDING ON PRIOR IMAGE ENHANCEMENTS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	09/27/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN <u>THREE MONTHS</u> FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. <u>THIS STATUTORY PERIOD CANNOT BE EXTENDED.</u> SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

### PART B - FEE(S) TRANSMITTAL

### Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where m

idicated unless correcte naintenance fee notifica	ed below or directed oth	erwise in Block 1, by (a	rders and notification of r a) specifying a new corres	spondence address;	and/or (l	b) indicating a separ	correspondence address as ate "FEE ADDRESS" for domestic mailings of the
65913	7590 06/27/	Fee(	(s) Transmittal, This	s certifica paper, s	ate cannot be used fo uch as an assignmen	r any other accompanying t or formal drawing, must	
NXP, B.V.	CTUAL PROPERT		I he Stat addr tran	reby certify that thi es Postal Service w ressed to the Mail	s Fee(s) ith suffic Stop IS	f Mailing or Transn Transmittal is being cient postage for first SUE FEE address a 273-2885, on the dat	deposited with the United class mail in an envelope above, or being facsimile
SAN JOSE, CA	95131						(Depositor's name)
							(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTORN	NEY DOCKET NO.	CONFIRMATION NO.
10/537,889	06/07/2005		Richard Chi-Te Shen		U	S02628US	8404
ITLE OF INVENTION	: ENHANCING VIDEO	IMAGES DEPENDING	ON PRIOR IMAGE ENH	ANCEMENTS			
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0		\$1810	09/27/2011
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	]			
RAO, ANAND	SHASHIKANT	2486	375-240160	•			
"Fee Address" ind PTO/SB/47; Rev 03-0 Number is required. ASSIGNEE NAME A PLEASE NOTE: Unl	ND RESIDENCE DATA less an assignee is identi h in 37 CFR 3.11. Comp	'Indication form ed. Use of a Customer  A TO BE PRINTED ON The description of the descrip	(1) the names of up to or agents OR, alternative (2) the name of a single registered attorney or a 2 registered patent attolisted, no name will be THE PATENT (print or type data will appear on the part of the p	vely, e firm (having as a ugent) and the name rneys or agents. If r printed.  be) atent. If an assigne assignment.	member es of up t no name i	a 2ois 3	cument has been filed for
			rinted on the patent):				<u>-                                      </u>
<ul> <li>a. The following fee(s):</li> <li>Issue Fee</li> </ul>	are submitted:	40	<ul> <li>Payment of Fee(s): (Plea</li> <li>A check is enclosed.</li> </ul>	ise tirst reapply an	y previo	usiy paid issue fee s	nown above)
☐ Publication Fee (N	No small entity discount p		Payment by credit card. Form PTO-2038 is attached.				
Advance Order - #	of Copies		The Director is hereby overpayment, to Depo	authorized to chargesit Account Numbe	ge the req r	uired fee(s), any def (enclose an	ciency, or credit any extra copy of this form).
	<b>tus</b> (from status indicated s SMALL ENTITY statu		☐ b. Applicant is no long	ger claiming SMAL	L ENTI	ΓY status. See 37 CF	R 1.27(g)(2).
OTE: The Issue Fee an terest as shown by the i	d Publication Fee (if requeecords of the United Sta	uired) will not be accepte tes Patent and Trademark	d from anyone other than t Office.	he applicant; a regis	stered atto	orney or agent; or the	assignee or other party in
Authorized Signature				Date			
	e		_				
his collection of inform application. Confident abmitting the completed is form and/or suggesti	nation is required by 37 C tiality is governed by 35 d application form to the tons for reducing this but	FR 1.311. The information U.S.C. 122 and 37 CFR USPTO. Time will vary den, should be sent to the work of the control of the co	on is required to obtain or r 1.14. This collection is est depending upon the indivention office COMMINITIES COMMINITIES	retain a benefit by the imated to take 12 n ridual case. Any color, U.S. Patent and T. THE ADDRESS.	ne public ninutes to mments of Frademan	which is to file (and complete, including on the amount of times to Office, U.S. Department of the complete of	by the USPTO to process) gathering, preparing, and e you require to complete tment of Commerce, P.O.

Box 1450, Alexandria, Virginia 22 Alexandria, Virginia 22313-1450. SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

DATE MAILED: 06/27/2011

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/537,889	06/07/2005	06/07/2005 Richard Chi-Te Shen		8404		
65913 7:	65913 7590 06/27/2011			EXAMINER		
NXP, B.V.		RAO, ANAND SHASHIKANT				
NXP INTELLECTUAL PROPERTY & LICENSING						
M/S41-SJ			ART UNIT	PAPER NUMBER		
1109 MCKAY DRIVE			2486			
SAN JOSE, CA 95	5131					

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1346 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1346 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

### **Privacy Act Statement**

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

	Application No.	Applicant(s)	
	10/537,889	SHEN, RICHARD	CHI-TE
Notice of Allowability	Examiner	Art Unit	1
	ANDY RAO	2486	
The MAILING DATE of this communication app All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85 NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT F of the Office or upon petition by the applicant. See 37 CFR 1.31	pears on the cover sheet was (OR REMAINS) CLOSED or other appropriate committee (RIGHTS). This application is	vith the correspondence add in this application. If not include nunication will be mailed in due	ded course. <b>THIS</b>
1. $\boxtimes$ This communication is responsive to <u>the Amendment filed</u>	<u>d on 4/19/11</u> .		
2. The allowed claim(s) is/are 1-21.			
<ul> <li>3.</li></ul>	re been received. re been received in Application and the been received in Application and the been received. The object of this communication to form the been received in the been received in the been received in the been received.  The been received. The been received in Application and the been received in Application and the been received in the b	cion No  ed in this national stage applicable a reply complying with the research of the complying with the research of the complexity of the comple	equirements
1) hereto or 2) to Paper No./Mail Date		ow (1 10 040) allaoned	
(b) including changes required by the attached Examiner Paper No./Mail Date  Identifying indicia such as the application number (see 37 CFR each sheet. Replacement sheet(s) should be labeled as such in	's Amendment / Comment  1.84(c)) should be written on	the drawings in the front (not th	e back) of
6. DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT			Note the
<ul> <li>Attachment(s)</li> <li>1. ☐ Notice of References Cited (PTO-892)</li> <li>2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)</li> <li>3. ☑ Information Disclosure Statements (PTO/SB/08),</li></ul>	6. ☐ Interview Paper No 7. ☐ Examiner	Informal Patent Application Summary (PTO-413), b./Mail Date 's Amendment/Comment 's Statement of Reasons for All	owance
/Andy S. Rao/ Primary Examiner, Art Unit 2486			
Trimary Examinor, Art Offic 2400			

Application/Control Number: 10/537,889 Page 2

Art Unit: 2486

# Allowable Subject Matter

1. Claims 1-21 are allowed.

Independent claims 1, 14, 19-21 are directed towards a video decoder, a set-top box, a video disc player, and a method and further recite "...decoding the I-frame; determining a remapping strategy of intensity values to change the contrast to enhance the decoded I-frame using a region-based intensity analysis; re-mapping the intensity values of the decoded I-frame according to the determined re-mapping strategy; recovering from the video stream, motion vectors for the subsequent non- I-frame, the motion vectors are differences in the positions of regions in the I-frame and corresponding regions in the non-I-frame; decoding the subsequent non-I-frame; determining whether the similarity between corresponding regions meet a similarity criteria; selecting one or more regions of the non-l-frame depending on whether similarity criteria is met for a similarity between the regions of the non-l-frame and the corresponding regions of the I-frame; and re-mapping the intensity values of the selected regions of the non-lframe depending on the re-mapping strategy of the corresponding regions of the I-frame so as to change the contrast to enhance the non-I-frame..." which are features that are not anticipated nor obvious over the art of record. Dependent claims 2-13, 15-18 are allowed for the reasons concerning the independent claims.

### Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDY RAO whose telephone number is (571)272-7337. The examiner can normally be reached on Monday-Friday 9AM-5:30PM.

Application/Control Number: 10/537,889 Page 3

Art Unit: 2486

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

asr /Andy S. Rao/ Primary Examiner, Art Unit 2486 June 20, 2011